

*Chemical Safety II* relates to the action of chemicals on the various organs of the body, how chemicals enter the body and eventually to the blood system, and the importance of protection, such as eyewear, face shields, gloves, aprons or even full protection, including respiratory protection, are noted in considerable detail.

*Chemical Safety III, Fire and Explosions*, is especially dynamic, since the chemical reactions are demonstrated, and the fundamentals of flash point, fire point and auto-ignition, as well as flammable limits, are clearly described. Pressure build-up and how it can be prevented is also noted. Emergency response to chemical spills or other incidents are important parts of the safety and health plan for any plant.

In general, these tapes are highly recommended since they contain the basic elements with a minimum of words. We hope they have wide distribution and use.

HOWARD H. FAWCETT

*OSHA Laboratory Standard*, available from Industrial Training Systems, Inc., Marleton, NJ, 14 min 1/2 inc. VCR, \$ 495.

This video, intended to be used in a training session for laboratory employees, attempts to inform workers about the requirements of Occupational Exposures to Hazardous Chemicals in Laboratories, published in *Federal Register*, Vol. 55, No. 21, Wednesday, January 31, 1990, effective May 1, 1990 except for the required written Chemical Hygiene Plan required no later than January 31, 1991. To the extent that a 35 page legal document can be compressed and simplified into a short discussion, followed by a 15 question True-False (T-F) written quiz, it is commendable, but lacks some important details which the script writers, obviously pressed for time, may have assumed to be unimportant.

Beginning with a speaker who seems to simply read cue cards without much enthusiasm, and followed by short discussions with glimpses of the laboratory scene, the video notes the major parts of the Occupational Safety and Health Administration (OSHA) laboratory plan: namely, Scope and Application; the Chemical Hygiene Plan; employee information and training; hazard identification including labels and material safety data sheets (MSDS) for each chemical; personal protective equipment including permissive exposures limits and emergency procedures; air monitoring where necessary; and finally medical consultation required in case of contact or exposure by a qualified (credentials not stated) licensed physician without cost to the employee, without loss of pay, and at a reasonable time and place. No mention is made that many phy-

sicians have very limited knowledge as to laboratory chemicals and proper treatment. It is noted that employees have access to their records at all times.

The 15 question T-F quiz, designed to be administered after the viewing of the tape, is good, but the questions could have been a little more thought provoking and soul-searching. For example, the question: 'What chemical or group of chemicals in your laboratory is most hazardous?' would have yielded some interesting data on the effectiveness of the program within the laboratory in question.

This reviewer questions whether the tape will inspire great interest in personal safety; only active and sincere participation and visibility by top management (not just a Chemical Hygiene Officer alone) will convince the average laboratory worker that the OSHA requirements are important. We hope that a more inspiring and informative tape and quiz will evolve; it is badly needed. Even highly trained 'scientists' may need additional training in their human chemical health and safety outlook; until recently it was given only lip service in many laboratories.

HOWARD H. FAWCETT

*Living with Radiation: the Risk, the Promise*, by H.N. Wagner Jr. and L.E. Ketchum, Johns Hopkins University Press, Baltimore, MD, 1989, ISBN 0-8013-3787-1, 193 pp., \$ 17.95.

This volume, carefully researched and referenced, would do much to reduce the fear of radiation if it were widely read. The authors comprise a medical doctor, Director of Divisions of Nuclear Medicine and Radiation Health Sciences at Hopkins, while his co-author is senior medical editor and writer at ProClinica, Inc. The work begins with an inspiring forward by Professor Glenn T. Seaborg, in which the professor puts the book in perspective, namely, that radiation, properly used and controlled, has already contributed greatly to human welfare, a fact that should not be overlooked by the masses who associate radiation only with fear.

In the prologue, aptly titled 'The politics of fear', the authors detail an interesting example of concerns, expressed by the case of the lawsuit in the small Malaysian village of Bukit Merah, where controversy over the proposed location of a disposal site for low-level radioactive waste could result in closing of the Asian Rare Earth Company's plant which extracts rare earths from the residues of tin mining from the world's largest known deposit of tin. Experts and legal students from around the world have differed in their evaluation of the relative hazard. Sixteen different rare earths, especially yttrium, are produced, and used in superconducting magnets which can operate at higher temperatures. In explaining the radioactive materials which are found in the waste,